

REMARKS

Claims 1 to 25 were pending in the Application at the time of examination. The Examiner rejected Claims 1, 2, 3, 5, 6, 7, and 8 Under 35 U.S.C. 101. The Examiner rejected Claims 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 18, 19, 21, 22, 23, 24, and 25 under 35 U.S.C. 103(a) as obvious over the Dukach et al. reference in view of the Huras et al. reference.

Claims 1 to 3, 5 to 11, 13 to 19 and 21 to 25 remain in the Application.

REJECTION OF CLAIMS 1, 2, 3, 5, 6, 7, AND 8 UNDER 35  
U.S.C. 101

The Examiner rejected Claims 1, 2, 3, 5, 6, 7, and 8 Under 35 U.S.C. 101. Applicant respectfully traverses the non-statutory subject matter rejection of Claims 1, 2, 3, 5, 6, 7, and 8.

To make a *prima facie* non-statutory subject matter rejection, the MPEP directs:

Office personnel have the burden to establish a *prima facie* case that the claimed invention as a whole is directed to solely an abstract idea or to manipulation of abstract ideas or does not produce a useful result. Only when the claim is devoid of any limitation to a practical application in the technological arts should it be rejected under 35 U.S.C. 101. ... Further, when such a rejection is made, Office personnel must expressly state how the language of the claims has been interpreted to support the rejection.

MPEP, §2106, 8th Ed., Rev. 2, p. 2100-7 (May 2004). It is noted that this directive stated only if "...the claimed invention as a whole is directed to solely an abstract idea or to manipulation of abstract ideas . . . should it be rejected [emphasis added]." Accordingly, failure to adhere to the

foregoing tenet means that a *prima facie* case of obviousness has not been made.

Applicants' Independent Claim 1 reads as follows with emphasis added:

A method for moving data between processes in a **computer-based system**, each process calling for one or more symbols in a **first library**, the method comprising:

associating each **process** with a **second library**, said second library comprising one or more symbols with a door interprocess communication mechanism wherein,

said second library enables each process to communicate a synchronization signal through a door, said door enabled by said door interprocess communication mechanism;

intercepting a call from each process for a symbol in said first library; and

redirecting said call to a corresponding symbol in said second library.

As shown above Applicants' Claim 1 includes the following elements: **a computer-based system; a process; a first library; a second library; and a door interprocess communication mechanism.**

Applicants respectfully submit that **a computer-based system; a process; a first library; a second library; and a door interprocess communication mechanism** each refer to a computer-related process, and not to a mental or abstract process. Consequently, Applicants respectfully submit that the rejection failed to meet the MPEP requirement for a *prima facie* case of non-statutory subject matter. Further, the rejection appeared to have considered the claim in a "vacuum" and not in view of the disclosure and the level of skill in the art as required by the MPEP. Applicants respectfully request reconsideration and withdrawal of the Section 101 rejection of Claim 1.

Claims 2, 3, and 5 to 8 depend, directly or indirectly on Claim 1. Consequently, Applicants respectfully request reconsideration and withdrawal of the Section 101 rejection of Claims 2, 3, and 5 to 8 as well.

REJECTION OF CLAIMS 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 13,  
14, 15, 16, 17, 18, 19, 21, 22, 23, 24, AND 25 UNDER 35 U.S.C.  
103(A)

The Examiner rejected Claims 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 18, 19, 21, 22, 23, 24, and 25 under 35 U.S.C. 103(a) as obvious over the Dukach et al. reference in view of the Huras et al. reference.

Applicants' independent Claim 1 reads as follows, with emphasis added:

A method for moving data between processes in a computer-based system, each process calling for one or more symbols in a first library, the method comprising:

associating each process with a second library, said second library comprising one or more symbols with a door interprocess communication mechanism wherein,

said second library enables each process to communicate a synchronization signal through a door, said door enabled by said door interprocess communication mechanism;

intercepting a call from each process for a symbol in said first library; and

redirecting said call to a corresponding symbol in said second library.

Applicants' independent Claim 9 reads as follows, with emphasis added:

A program storage device readable by a machine, tangibly embodying a program of instructions readable by the machine to perform a method for moving data between processes in a computer-based system, each process calling for one or more symbols in a first library, the method comprising:

associating each process with a second library, said second library comprising one or more symbols with a door interprocess communication mechanism wherein,

said second library enables each process to communicate a synchronization signal through a door, said door enabled by said door interprocess communication mechanism;

intercepting a call from each process for a symbol in said first library; and

redirecting said call to a corresponding symbol in said second library.

Applicants' independent Claim 17 reads as follows, with emphasis added:

An apparatus for moving data between process in a computer-based system, the apparatus comprising:

a plurality of processes;

a first library of symbols having one or more symbols, said plurality of processes calling for said one or more symbols in said first library of symbols;

a second library of symbols having one or more symbols, said one or more symbols associated with a door interprocess communication mechanism wherein,

said second library enables each process to communicate a synchronization signal through a door, said door enabled by said door interprocess communication mechanism; and

an interposer intercepting a call for one or more symbols in said first library of symbols and redirecting a corresponding call for one or more symbols in said second library of symbols.

Applicants' independent Claim 25 reads as follows, with emphasis added:

An apparatus for moving data between processes in a computer-based system, each process calling for one or more symbols in a first library, the apparatus comprising:

means for associating each process with a second library, said second library comprising one or more symbols with a door interprocess communication mechanism wherein,

said second library enables each process to communicate a synchronization signal through a door, said door enabled by said door interprocess communication mechanism;

means for intercepting a call from each process for a symbol in said first library; and

means for redirecting said call to a corresponding symbol in said second library.

As shown above, each of Applicants independent Claims 1, 9, 17 and 25 includes the recited feature of a "second library comprising one or more symbols with a door interprocess communication mechanism wherein, said second library enables each process to communicate a synchronization signal through a door, said door enabled by said door interprocess communication mechanism " or words to that effect.

The Examiner has stated, with emphasis added:

...Dukack (sic) teaches the invention substantially as claimed including: data (information, col 3, ln 35-42), data between processes in a computer-based system (col 6, ln 35-40/col 8, ln 37-42), one or more symbols (OS function 144, col 8, ln 55-62), the first library (the library of the OS 134, col 8 ln 52-55), process calling for one or more symbols in a first library (col 8, ln 58-62), associating each process

with a second library (col 8, ln 36-37), a second library (the interposed library, col 8, ln 36-37/ln 60-65), one or more symbols of the second library (the interposed library function col 8, ln 52-65), interprocess communication mechanism (interprocess communication links, col 8, ln 40-46), **a door interprocess communication** (filer descriptor, col 3, ln 62-64/col 10, ln 33-34/ln 53-55), redirecting said call to a corresponding symbol in said second library (col 8, ln 63-65).

Applicants first note that Dukach's column 8, lines 35 to 65 reads as follows, with emphasis added:

The back end server and the interposed library which is linked to it, are one process. The front end server is another. The OS accords each separate process its own separate subspace within the common OS space. **A given process cannot directly write to another process's sub-space, but the OS does let it communicate with another processes in the same OS space through interprocess communication links, or pipes. Such pipes are defined and only work within a given OS space defined by a given OS kernel.**

Although it is not mentioned elsewhere in this specification, those skilled in the computer arts will understand that the OS normally runs processes in virtual memory, i.e., a memory space larger than that which will fit in RAM at one time, and automatically swaps portions of this virtual memory space in and out of memory from and to the hard disk, as needed for current computations.

As stated above, the back end server is linked to the interposed dynamically-loaded library 116. The back end server is also linked to the library of the OS 134. As is shown in FIG. 10, the interposed library includes functions 144A, such as bind( ), listen( ), and accept( ), having some of the same names as the functions 144 contained in the OS's network library 142. Since the interposed library is linked to the back end server with a higher precedence than the OS's library, if the back end server calls a named OS function 144 for which there is a similarly named interposed library function

144A, the call will be intercepted by the interposed library function. This means the back end server process's program control will go to the interposed library function 144A, rather than to the similarly named OS function 144.

As shown above, Dukach specifically discloses, teaches and suggests that the interprocess communication links are pipes. Indeed Dukach discloses, teaches and suggests that "interprocess communication links" and "pipes" are identical terms by reciting "**interprocess communication links, or pipes...**" Consequently, Applicants respectfully submit that Dukach specifically discloses, teaches and suggests that pipes are the only form of interprocess communication link suitable for use with Dukach's structure and that Dukach specifically rules out, and teaches away from, the use of any other form of interprocess communication link.

Pipes, such as those specifically disclosed and taught in Dukach, are discussed in the "BACKGROUND OF THE INVENTION SECTION" of Applicants Specification at, for example page 2, line 18 to page 3, line 7. Pipes, such as those specifically disclosed and taught in Dukach, are also shown in Applicants FIG.1, clearly marked a "Prior Art". Page 2, line 18 to page 3, line 7 of Applicants Specification reads as follows, with emphasis added:

Interprocess communication (IPC) is the exchange of data between two or more processes. **Various forms of IPC exists: pipes, sockets, shared memory, message queues, and Solaris™ doors.**

**A pipe provides the ability for a byte of data to flow in one direction and is used between processes. These two processes must be of common ancestry.** Typically, a pipe is used to communicate between two processes such that the output of one process becomes the input of another process. FIG. 1 illustrates a conventional pipe 100 according to a

prior art. The output of process 102 becomes the input of process 104. Pipe 100 is terminated when process 102 that is referencing it terminates. Data is moved from process 102 to process 104 through a pipe 100 situated within a kernel 106.

As shown above, Applicants clearly distinguish pipes as distinct from doors and then explain some of the limitations of pipes.

Page 5 lines 3 to 11 of Applicants' Specification reads as follows:

**The fastest form of IPC on Solaris™ Operating System from Sun Microsystems Inc. is doors. However, applications that want to communicate using doors need to be explicitly programmed to do so. Even though doors IPC is very fast, the socket-based IPC is more popular since it is portable, flexible, and can be used to communicate across a network.**

A definite need exists for a fast IPC technology that would overcome the drawbacks of doors and socket-based IPC. **Specifically, a need exists for a fast socket technology implementation using doors.** A primary purpose of the present invention is to solve these needs and provide further, related advantages.



Here again, Applicants have shown a clear distinction between doors, and other forms of IPCs, such as the specifically disclosed pipes of Dukach.

Applicants further submit that the addition of the Huras et reference does nothing to cure the deficiencies of the Dukach reference. Consequently, Applicants respectfully submit that neither the Dukach reference, the Huras et al. reference, or any proper combination of the Dukach reference and the Huras et al. reference, discloses, teaches, suggests, or provides motivation for a door interprocess communication mechanism wherein, said second library enables each process to communicate a synchronization signal through a door, said door enabled by said door interprocess communication mechanism " or words to that effect, as recited in Applicant' claims.

In light of the discussion above, Applicants respectfully request the Examiner withdraw the rejection of Applicants' independent Claims 1, 9, 17 and 25 and allow Claims 1, 9, 17 and 25, as amended, to issue.

Claims 2, 3, 5, 6, 7 and 8 depend, directly or indirectly on Claim 1. Therefore, Claims 2, 3, 5, 6, 7, 8 include all of the features and limitations of Claim 1, as amended. Consequently, in light of the discussion above with respect to Claim 1, Applicants respectfully request allowance of Claims 2, 3, 5, 6, 7, and 8.

Claims 10, 11, 13, 14, 15 and 16, depend, directly or indirectly on Claim 9. Therefore, Claims 10, 11, 13, 14, 15, 16, include all of the features and limitations of Claim 9, as amended. Consequently, in light of the discussion above with respect to Claim 9, Applicants respectfully request allowance of Claims 10, 11, 13, 14, 15, and 16.

Claims 18, 19, 21, 22, 23 and 24 depend, directly or indirectly on Claim 17. Therefore, Claims 18, 19, 21, 22, 23 and 24 include all of the features and limitations

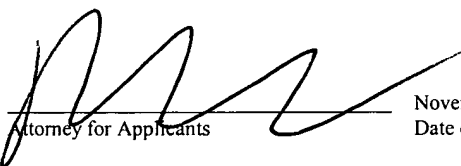
of Claim 17, as amended. Consequently, in light of the discussion above with respect to Claim 17, Applicants respectfully request allowance of Claims 18, 19, 21, 22, 23 and 24.

**CONCLUSION**

For the foregoing reasons, Applicants respectfully request allowance of all pending claims. If the Examiner has any questions relating to the above, the Examiner is respectfully requested to telephone the undersigned Attorney for Applicants.

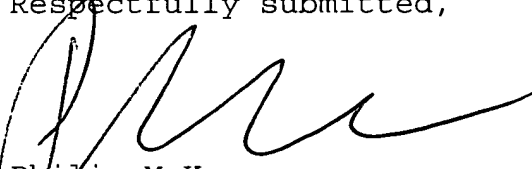
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Attorney for Applicants

November 14, 2005  
Date of Signature

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